

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A system comprising:

an environmental stress monitoring module operable to monitor an atmospheric pressure of a data storage device and signal an environmental stress condition if said pressure is outside a predetermined range identify data storage device operation in a non-temperature range environmental stress condition; and

a write integrity check module for verifying written data integrity during data storage device operation in said environmental stress condition.

2. (Currently amended) The system according to claim 1 wherein the non-temperature range environmental stress condition monitoring module is further configured to signal an environmental stress condition in relation to comprises a selected one of an atmospheric pressure, a vibration level, or an error correction code (ECC) rate.

3. (Previously presented) The system according to claim 1 wherein the write integrity check module invokes a software routine verifying each write operation following identification of the environmental stress condition by reading back each data written to the data storage device and comparing the read back data with the data written.

4. (Currently amended) The system according to claim 1 wherein the non-temperature range environmental stress monitoring module further stores data associated with said stress condition for potential failure analysis in the event that a subsequent failure of the data storage device occurs, condition comprises an amplitude of a data readback signal transduced by a data transducer.

5. (Currently amended) A method comprising:
identifying a non-temperature range environmental stress condition occurring during data storage device operation in relation to an error correction code (ECC) rate of data transduced by the device;
verifying data written to the data storage device after the non-temperature range environmental stress condition is identified; and
signaling a write error if the data written to the data storage device when verification of the data written is not confirmed.

Claim 6 (Cancelled).

7. (Previously presented) The method according to claim 5 wherein the verifying step comprises:

writing data to a logical block address;
reading back the data written to the logical block address; and
comparing the data read back with the written data.

8. (Original) The method according to claim 7 further comprising:
determining a spare location for the written data if the data read back is not identical
to the written data;
writing the written data to the spare location;
reading back the data written to the spare location; and
comparing the data read back from the spare location to the data written to the spare
location.

9. (Previously presented) The method according to claim 8 further comprising:
indicating a write error if the data read back from the spare location is not identical
to the data written to the spare location.

Claims 10-13 (Cancelled).

14. (Currently amended) The method according to claim 6 5 wherein data associated
with the non-temperature range parameter of the monitoring step is further preserved for
potential failure analysis in the event that a device failure occurs.

15. (Currently amended) An apparatus comprising:
a data transducer configured to transfer data with a data storage medium;
an environmental stress monitoring module configured to identify a non-
temperature range environmental stress condition; and

a data integrity check module which verifies data integrity after a data transfer operation of the data transducer in relation to identification of the non-temperature range environmental stress condition by the environmental stress monitoring module, wherein the environmental stress monitoring module further preserves the non-temperature range parameter for potential failure analysis in the event that an apparatus failure occurs.

16. (Previously presented) The apparatus according to claim 15 wherein the non-temperature range environmental stress condition comprises a selected one of an atmospheric pressure, a vibration level, or an error correction code (ECC) rate.

17. (Previously presented) The apparatus according to claim 15 wherein the non-temperature range environmental stress condition comprises an amplitude of a data readback signal transduced by the data transducer.

Claim 18 (Cancelled).